

UNITED STATES DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

and

AGRICULTURAL RESEARCH SERVICE

and the

UNIVERSITY OF ARIZONA AGRICULTURAL EXPERIMENT STATION

NOTICE OF NAMING AND RELEASE OF  
'SANTA RITA' FOURWING SALTBUSSH (*ATRIPLEX CANESCENS*)

The U. S. Department of Agriculture, Soil Conservation Service and U.S.D.A. Agricultural Research Service and the University of Arizona Agricultural Experiment Station announce the naming and release of 'Santa Rita' fourwing saltbush [*Atriplex canescens* (Pursh) Nutt] for commercial production and marketing of seed and plants.

Origin: Fourwing saltbush is also commonly known as wingscale, cenizo, chamiso, chamisa and white greasewood. 'Santa Rita' fourwing saltbush originated from a seed collection made by S. Clark Martin from a native stand on the Santa Rita Experimental Range (SRER), Pima County, Arizona, in December of 1962. Santa Rita Experimental Range (USFS) is located 30 miles south of Tucson and six miles east of Green Valley, Arizona. The site is at 3100 feet (945 m) elevation. The average annual precipitation is 12 inches (30 cm) at Sec 3, T18S, R14E Gila-Baseline-Meridian on the SRER. The mean annual temperature is about 64°F (18°C). Winter temperatures regularly get as low as 23°F (-5°C). Summer temperatures may reach 105°F (40.5°C) or higher.

Other Identification Used: 'Santa Rita' has been tested under the following control numbers:

P-15644	USDA-SCS Western Regional Plant Materials Control Number
A-16805	Tucson, Arizona USDA-SCS Plant Materials Center
BN-15412-63	Beltsville, Maryland USDA-SCS National Plant Materials Center
9003553	USDA, SCS National Plant Materials Center

Description: 'Santa Rita' fourwing saltbush is an erect, evergreen shrub, diffusely-branched, variable in shape, 1.5-2.5 m tall and deep-rooted. The stems are stout, terete, smooth, gray-scurfy, with the older bark gray and exfoliating in thin layers. The leaves are numerous, evergreen, alternate, sessile or short-petioled, linear to elliptic or oblong to spatulate, apex usually obtuse, base narrowed, margin entire, 1-5 cm long, 0.3-1.3 cm wide, one-nerved, thick, and densely gray-scurfy. Plants are dioecious, rarely monoecious; staminate flowers are densely spicate from terminal panicles which are leafy toward the base; pistillate flowers occur in dense leafy and

bracted spikes and panicles; staminate perianth is 3-5 cleft (3-5 stamens); pistillate absent, 2 stigmas; fruit bracts are sessile or short peduncled, the body (4-12 mm long), united to bifid apex, developing 2 pairs of wings, margin of wings is usually entire. The seeds are 1.5-2.5 mm long, brown, radicle superior. 'Santa Rita' is diploid according to Dr. H. Stutz, Brigham Young University, Provo, Utah.

Development and Use: 'Santa Rita' fourwing saltbush was comparatively evaluated with eight accessions of fourwing saltbush in the 1966 Shrub Initial Evaluation Planting (IEP) and thirty-five accessions of saltbush in the 1969 Shrub IEP. 'Santa Rita' was selected as being the best overall performer in vigor and cover. In 1980, rooted cuttings from the original material was used to establish a breeder's block. A ratio of one (1) male to five (5) female plants were space planted with 5 feet within the rows and 15 feet between rows. Continued testing included both plants and direct seeding at about 25 sites in southern Arizona, California, New Mexico and Texas. This strain has shown superior performance to all accessions of fourwing saltbush, including the standard of comparison, 'Marana'.

It has estimated seed yields of 350 pounds of dewinged seed per acre (393 kg/ha) per year with specified orchard design. There are about 60,000 dewinged seeds per pound (132,000/kg).

'Santa Rita' was selected for use in critical area stabilization, shelterbelts, range improvement and improvement of the vegetative components of wildlife habitat. Its leaves, stems and fruit provide browse in all seasons for livestock and wildlife.

Area of Adaptation: Fourwing saltbush is one of the most widespread and adaptable of North American shrubs. It grows in a variety of soil types from the Great Plains to the Pacific coast ranges and from Canada to Mexico at elevations from below sea level to 8000 feet (2440 m). 'Santa Rita' fourwing saltbush is well adapted to a wide range of soil textures from sandy loams to clay loams. 'Santa Rita' fourwing saltbush is best adapted to the Sonoran desert zones but also does well in the Mohave and Chihuahuan deserts. It appears to have salt tolerance similar to other fourwing saltbush strains. Due to its hot desert origin, 'Santa Rita' has performed significantly better than 'Rincon', 'Wytana' and 'Marana' in the southwestern climatic zones. It is a taller, more vigorous grower than any other accession but is not as cold tolerant. 'Santa Rita' fourwing saltbush is adapted to 200 to 4000 feet (61-1220 m) elevation and to an average annual precipitation of 8 to 16 inches (20-41 cm).

Seed and Plant Source: The Tucson Plant Materials Center will be responsible for maintaining a supply of foundation and breeder seed. Foundation seed and plants will be available for establishing seed source nurseries for commercial production through the Arizona Crop Improvement Association. Standards for all classes of seed will be included in the Arizona Seed Certification Handbook.

Suggested release date of 'Santa Rita' fourwing saltbush is March, 1987. Limited quantities of foundation seed and plants will be available immediately for commercial nursery production.

*Dane M. Shultz*

Arizona State Conservationist  
USDA - Soil Conservation Service

12/2/86

Date

*James B. Newman*

Director, Ecological Sciences and  
Technology Division  
USDA - Soil Conservation Service

5/12/87

Date

for *M. E. Carter*

Administrator  
Agricultural Research Service

e

JUN 5 1987

Date

*L. W. Dewhurst*

Director, Arizona Agricultural  
Experiment Station  
University of Arizona

4/20/87

Date

Table 1

## 1966 COOL-SEASON FORB AND SHRUB SPECIES IEP

Genus/Species	ID No.	Comp Rating	Plant Date	Eval Years	Germ Rating	Plant Establish	Stand Uniform	Avg Vigor	Canopy Height	Canopy Size(cm) Width
<i>Atriplex canescens</i>	A-16831	2	11/66	66-70	2	2	3	2	76	89
<i>Atriplex canescens</i>	A-16568	3	11/66	66-70	2	3	3	3	81	76
<i>Atriplex canescens</i>	T04468	2	11/66	66-70	1	2	2	1	122	122
<i>Atriplex canescens</i>	T03553	2	11/66	66-70	2	2	2	1	139	128
<i>Atriplex canescens</i>	P-15585	4	11/66	66-70	2	4	4	4	30	101
<i>Atriplex lentiformis</i>	A-17079	2	11/66	66-70	1	2	2	2	114	101
<i>Atriplex lentiformis</i>	T26898	3	11/66	66-70	1	4	3	4	76	81
<i>Atriplex nuttallii</i>	P-15586	4	11/66	66-70	5	4	4	4	18	36

## 1970 SHRUB AND FORB SPECIES IEP

<i>Atriplex atacamensis</i>	330655	4/70	70-74	No emergence	3	3	110	95
<i>Atriplex canescens</i>	T04468	2	4/70	70-74	1	2	2	145
<i>Atriplex canescens</i>	T03553	1	4/70	70-74	2	1	3	80
<i>Atriplex canescens</i>	T03554	3	4/70	70-74	2	1	3	85
<i>Atriplex canescens</i>	A-17358	3	4/70	70-74	2	3	3	76
<i>Atriplex canescens</i>	T04468	3	4/70	70-74	2	3	3	90
<i>Atriplex canescens</i>	330657	2	4/70	70-74	2	2	3	95
<i>Atriplex canescens</i>	330658	3	4/70	70-74	1	3	4	90

Table 2

## 1977 SHRUB, TREE &amp; ANNUAL FORB IEP

(Best of 104 *Atriplex* spp. planted are rated below)

ID No.	Rate	Date	Comp	Plant	Germ	1977	1978	1979	1980	1981	Leaf Prod	Abtl Prod	'79 % Stand	1978-Can Hgt	1980-Can Hgt	1980-Wdh	
T03553	2	9/77	5	2	2	3	2	3	3	5	7	60	120	210	200	450	
T03554	4	9/77	3	6	6	2	3	4	5	0	0	40	130	210	170	420	
T03555	6	9/77	3	6	6	5	6	6	5	0	0	40	110	170	150	240	
T04468	<sup>a</sup>	9/77	8														
346419	<sup>b</sup>	9/77	9														
T03557	5	9/77	5	5	3	4	6	6	7	5	0	0	40	120	190	130	450
T03558	5	9/77	5	3	4	4	5	6	5	5	5	0	60	120	190	140	400
T03559	5	9/77	7	4	4	4	5	6	7	7	0	0	90	135	190	160	200
T03560	7	9/77	5	7	7	7	8	7	7	0	0	0	30	120	175	120	150
T03562	7	9/77	5	7	7	7	8	9	7	0	0	0	40	100	165	90	110
T03563	5	9/77	5	5	4	6	7	5	5	0	0	0	90	110	170	140	220
T03565	6	9/77	3	6	6	6	6	5	5	0	0	0	10	110	60	140	243
T03566	5	9/77	5	3	4	6	6	5	5	7	9	70	140	210	145	230	
T03567	7	9/77	7	4	4	4	8	6	5	7	9	80	120	215	160	220	
T03568	5	9/77	5	5	4	5	5	5	5	5	9	70	110	195	130	200	
330657	5	9/77	5	5	6	5	6	5	6	0	0	20	80	100	65	130	
T03569	4	9/77	3	4	3	4	3	5	5	3	9	50	145	215			
346419	9	9/77	9	8	8	7	5	7	0	0	0	40	15	65	10	10	

NOTE: All accessions listed are *Atriplex canescens*.<sup>a</sup> Died 12/77<sup>b</sup> Died 12/78<sup>c</sup> Died 1980

Table 3

1971-73 Pima Mining Company FEP

(Mixed Tailings Barley Stubble Plot)

Genus/Species	Ident	Overall Vigor <sup>1</sup>	Seedling Establishment	% Stand
Atriplex semibaccata	Corto	1	3	60
Atriplex semibaccata	299488	1	2	80
Atriplex canescens	T03553	1	2	80
Atriplex canescens	A-16652	1	2	80
Atriplex lentiformis	330671	1	2	80
Enchytraea tomentosa	106712	3	4	20

Table 4

1970 Wellton Highway Mulch-Tucked Plots

(Irrigated to Establish)

Genus/Species	Ident	Overall Vigor <sup>1</sup>	Seedling Establishment	1972 Vigor	1973 Vigor
Atriplex semibaccata	Corto	5	5	6	6
Atriplex semibaccata	299488	5	5	6	6
Enchytraea tomentosa	106712	6	6	6	0
Atriplex canescens	T03553	1	1	1	2
Atriplex lentiformis	330671	1	1	2	2

Table 5

1970 Wellton Highway Mulch-Tucked Plots

(Non-Irrigated)

Genus/Species	Ident	Overall Vigor <sup>1</sup>	Seedling Establishment	1972 Vigor	1973 Vigor
Atriplex semibaccata	Corto		0	0	0
Atriplex semibaccata	299488		0	0	0
Enchytraea tomentosa	106712		5	0	0
Atriplex canescens	T03553	2	2	4	5
Atriplex lentiformis	330671		0	0	0

<sup>1</sup> Ratings: 1=excellent; 4=average; 9=very poor; 0=died

Table 6  
1977-79 RED ROCK CFT

Genus/Species	Ident	Plant Date	Years Eval	Overall Rating	Germ	Estab	Vigor	Stand	1981	1984	1984 Canopy (cm)
											Height Width
Atriplex canescens	T03553	9/77	77-84	1	3	3	2	60	148	165	
Atriplex canescens	T03553	10/79	79-84	1	3	2	1	95	156	173	
Atriplex lentiformis	330671	9/77	77-84	3	2	5	5	5	120	145	
Atriplex lentiformis	330671	10/79	79-84	3	2	5	5	10	180	200	
Atriplex nummularia	T03612	9/77	77-		8	9	9	45	75	80	
Atriplex nummularia	T03612	10/79	77-		8	8	9	45	75	80	

Ratings: 1=excellent; 4=average; 9=very poor; 0=died

Table 7  
 1978 RANGE SEEDINGS IN SOUTHERN ARIZONA  
 (Harvey Messmith's Trial Plots)

Genus/Species	Ident	Overall Vigor	Seedling Vigor	Location
<i>Atriplex canescens</i>	T03553	1	1	Florence
<i>Atriplex lentiformis</i>	330671			Florence
<i>Atriplex semibaccata</i>	Corto	3	2	Florence
<i>Atriplex polycarpa</i>	399195			Florence
<i>Atriplex canescens</i>	A-19194			Florence
<i>Atriplex canescens</i>	T03553	1	1	Apache Junction
<i>Atriplex lentiformis</i>	330671			Apache Junction
<i>Atriplex semibaccata</i>	Corto	2	3	Apache Junction
<i>Atriplex polycarpa</i>	399195			Apache Junction
<i>Atriplex canescens</i>	A-19194			Apache Junction

Ratings: 1=excellent; 4=average; 9=very poor; 0=died

Table 8

## 1970 LEGUME, SHRUB &amp; FORT SPECIES ADVANCED EVALUATION PLANTINGS

Final Summary for *Atriplex canescens* Accessions

Identifications	Eval Year	Vigor	Leaf	Seed	Cold	Date	Stand	Canopy (cm)	
			Prod	Prod	Resist	Mature	Rate	Height	Width
PI 330657	1970	5						3	
	1971	1			1			3	
	1972	1	1	3	3	8-17	7	91	122
	1973	1		1	1		7	127	189
PI 330658	1970	7					3		
	1971	5			1			3	
	1972	3	5	5	5		5		
	1973	3		9	1			102	152
A-16652, T04468	1970	5					5		
	1971	3			1			5	
	1972	1	1	3	5		7	76	91
	1973	3	3	9	5			173	224
T03553, A-16805 'Santa Rita'	1970	5					5		
	1971	3			1			5	
	1972	1	1	1	3	8-17	1	107	107
	1973	1	1	1	1	8-15	1	173	254
T03554, A-17157	1970	5					5		
	1971	3			1			5	
	1972	3	5	5	3		5	61	61
	1973	3		7	3			152	165
T04468, A-17452	1970	5					5		
	1971	1			1			5	
	1972	1	1	3	5		5	76	91
	1973	3	1	9	5			173	178
A-17358	1970	5					5		
	1971	3			1			5	
	1972	1	1			9-01	5		
	1973	3		7	3			142	132

Ratings: 1=excellent; 4=average; 9=very poor

Table 9

## 1972 CHANNEL SLOPE FEP

(Located at the TPMC on the North-Facing Slope)

Genus/Species	Ident.	Seed Date	Comp Vigor <sub>1</sub>	Leaf Prod	Seed Prod	% Stand	1975 Height	Canopy(cm)	Mature Width	Date	Uniform Rating
Atriplex canescens	346419	3/72	7	9	9	5	7	10			7
Atriplex canescens	330657	3/72	4	1		15	100	120			4
Atriplex canescens	392078	3/72	2	2		5	65	80			4
Atriplex canescens	T03553	2/72	1	2	7		70	200	230	July	1
Atriplex lentiformis	T26898	3/72	4	6		90	300	290			1
Atriplex semibaccata	A-17852	3/72	No emergence								

1 Ratings: 1=excellent; 3=good; 4=average; 7=poor; 9=very poor; 0=dead

Table 10

1977 HAYDEN, ARIZONA MINE TAILINGS  
 (Transplanted Shrubs)

Genus/Species	Ident.	Non-Limed Site <sup>1</sup>	Limed Site <sup>1</sup>	Remarks
<i>Atriplex lentiformis</i>	330671	0	7	
<i>Atriplex polycarpa</i>	T03608	0	9	
<i>Atriplex torreyi</i>	T03619	7	5	
<i>Atriplex rhagadioides</i>	T03614	7	6	Insect galls on LIMED
<i>Atriplex nummularia</i>	T03612	7	3	Many dead branches on both sites
<i>Atriplex muelleri</i>	T03599	7	5	One good plant; others dead on LIMED
<i>Atriplex spongiosum</i>	330668	0	4	Seed set on both sites
<i>Atriplex glauca</i>	T03586	4	4	Appears to have good cold and drought tolerance
<i>Atriplex canescens</i>	T03553	3	1	

<sup>1</sup> Ratings: 1=excellent; 3=good; 4=average; 7=poor; 9=very poor; 0=dead

Table 11

## 1979 CATERPILLAR PROVING GROUNDS FEP

<u>Genus/Species</u>	<u>Ident.</u>	<u>Treatment</u>	<u>Stand</u>	<u>Plant Height(cm)</u>	<u>5/82 Vigor<sup>1</sup></u>	<u>9/82 Vigor<sup>1</sup></u>	<u>1/85 Vigor<sup>1</sup></u>
<i>Atriplex canescens</i>	T03553	Furrows	4	76	1	2	1
		Potholes	10	122	1	1	1
		Sand Mulch	25	46	2	2	1
		Benches	80	81	3	3	3
<i>Atriplex lentiformis</i>	330671	Furrows	2	30	3	3	4
		Potholes	4	20	3	3	5
		Sand Mulch	0	0	0		
		Benches	20	25	3	3	4
<i>Atriplex nummularia</i>	T03612	Furrows	0		0		
		Potholes	0		0		
		Sand Mulch	0		0		
		Benches	0		0		
<i>Atriplex semibaccata</i>	432439 Corto	Furrows	10	15	1	4	6
		Potholes	75	15	3	4	6
		Sand Mulch	0	0	0	0	
		Benches	10	15	3	7	9

<sup>1</sup> Ratings: 1=excellent; 3=good; 4=average; 7=poor; 9=very poor; 0=dead

Table 12

1982 FOURWING SALTBUSSH INTER-CENTER STRAIN TRIAL  
 (Located at Red Rock, Arizona)

Accession	Plant Date	% Stand	Vigor <sup>1</sup>	Average			Remarks
				1985	1986	1984	
P1 476816	1/82	80	4	4	3	70	48 'Marana'
P1 346419	1/82	0	0				'Wyana'
P1 478841	1/82	0	0				'Rincon'
T03653	1/82	60	2	3	1	99	Appears to be resistant to rabbit damage 'Santa Rita'
P1 478837	1/82	0	0				
T04473	1/82	16	6	7	5	87	47
P1 478838	1/82	0	0				
T04478	1/82	20	6	7	8	10	10
T04488	1/82	0	7	0			
P1 432434	1/82	20	6	6	6	20	10
P1 432436	1/82	20	2	3	3	90	91
T03126	1/82	20	7	8	9	9	9
T03134	1/82	40	6	7	6	45	34
T03135	1/82	0	8	0			
T03136	1/82	0	9	0			
T28162	1/82	20	5	5	6	44	27
T28163	1/82	0	0				
T28164	1/82	0	7	0			
T28165	1/82	0	8	0			
T28166	1/82	0	0				
T30609	1/82	20	5	6	5	26	20
T29097	1/82	20	4	3	3	103	108
T29096	1/82	0	9	0			
T04474	1/82	40	5	6	5	30	27
							Rabbit damage (one plant)

<sup>1</sup> Ratings: 1=excellent; 3=good; 4=average; 7=poor; 9=very poor; 0=dead

Table 13

1984 PAGE RANCH FEP

(Transplanted Shrubs)

<u>Genus/Species</u>	<u>Ident.</u>	<u>Eval Year</u>	<u>% Stand</u>	<u>Leaf Prod<sup>1</sup></u>	<u>Seed Prod<sup>1</sup></u>	<u>Vigor<sup>1</sup></u>	<u>Average Plant Ht(cm)</u>	<u>Average Canopy Wd(cm)</u>
<i>Atriplex canescens</i>	T03553	1984	80	3	0	2	48	41
		1985	75	2	5	2	120	98
		1986	50	2	3	1	119	102
<i>Atriplex canescens</i>	Marana 476816	1984	75	4	0	5	38	30
		1985	63	5	0	6	80	50
		1986	50	5	9	3	80	61
<i>Atriplex canescens</i>	330671	1984	0	0	0	0		
<i>Atriplex canescens</i>	Casa	1984	0	0	0	0		

<sup>1</sup> Ratings: 1=excellent; 3=good; 4=average; 7=poor; 9=very poor; 0=dead

Table 14

1982 FOURWING SALTBUCK INTER-CENTER STRAIN TRIAL  
(Antelope Valley, California)

PI Number	Eval Year	No. Surv	Base Dia(cm)	Canopy Wd(cm)	Plant			Vigor	Unif Abun	Stem Dens	Stem Abun	Fol. Dens	Fol. Dens
					Ht(cm)	2	2						
T30609	1984	5	5	240	100	2	2	3	3	3	3	3	3
Rincon	1985	5	6	300	110	1	1	2	2	2	2	2	2
346819	1984	0											
Wytana	1985	0											
476816	1984	6	6	190	90	2	1	2	2	3	3	3	3
Marana	1985	6	8	210	90	1	1	2	2	2	2	2	2
T03126	1984	2	5	170	80	2	2	3	3	3	3	3	3
	1985	2	5	200	80	2	2	2	2	2	2	2	2
T03134	1984	5	4	200	70	1	2	3	3	3	3	3	3
	1985	5	6	220	80	1	1	2	2	2	2	2	2
T03135	1984	5	4	150	90	3	2	3	3	3	3	3	3
	1985	5	4	160	100	3	2	2	2	2	2	2	2
T03136	1984	5	2	100	60	2	1	2	2	2	2	3	3
	1985	5	3	100	70	3	2	2	2	2	2	2	2
T03553	1984	4	6	170	100	2	2	3	3	3	2	2	2
Santa Rita	1985	4	7	190	110	1	2	2	2	2	2	2	2
T04468	1984	4	5	160	90	2	2	3	3	3	3	3	3
	1985	4	6	180	90	2	2	2	2	2	2	2	2
T04473	1984	5	4	100	80	3	3	3	3	4	3	3	3
	1985	5	5	140	80	4	4	2	2	2	2	2	2
T04474	1984	4	3	100	80	4	4	3	4	3	3	3	3
	1985	4	3	120	80	5	4	2	2	2	2	2	2
T04478	1984	3	3	100	70	4	6	3	4	3	3	3	3
	1985	3	3	140	80	4	4	2	2	2	2	2	2
T04488	1984	5	3	120	80	5	4	3	4	3	3	3	3
	1985	5	4	160	80	4	4	2	2	2	2	2	2
T28162	1984	4	2	110	90	4	6	3	4	3	3	3	3
	1985	4	3	140	100	6	6	2	2	2	2	2	2
T28163	1984	5	4	140	70	2	3	3	3	3	3	3	3
	1985	5	6	170	70	2	2	2	2	2	2	2	2
T28164	1984	4	5	140	80	4	4	3	4	3	3	3	3
	1985	4	5	140	70	6	6	3	3	3	3	3	3
T28165	1984	5	3	130	60	4	4	3	4	3	3	3	3
	1985	5	3	160	70	6	5	3	3	3	3	3	3
T29096	1984	5	4	150	100	4	4	3	4	3	3	3	3
	1985	5	4	180	100	3	3	3	3	3	3	3	3
T29097	1984	5	6	220	110	3	3	3	3	3	3	3	3
	1985	5	8	280	90	2	2	3	3	3	3	3	3
432434	1984	5	6	180	70	2	2	3	3	3	3	3	3
	1985	5	7	180	80	2	2	3	3	3	3	3	3
432436	1984	6	4	110	40	2	3	3	3	3	3	3	3
	1985	6	6	130	60	2	2	3	3	3	3	3	3

Ratings: 1=excellent; 2=good; 4=average; 7=poor; 9=very poor; 0=dead

Table 15  
 1982 FOURWING SALTBUCK INTER-CENTER STRAIN TRIAL  
 (Knox City, Texas)

<u>PI No/Cultivar</u>	<u>1984 Vigor<sup>1</sup></u>	<u>1985 Vigor<sup>1</sup></u>
T04473	2	2
Rincon	3	3
T29096	4	4
T04488	5	5
T03553 <sup>2</sup>	5	6
Wytana	7	9
432434	2	2
T28162	3	3
T04468	4	4
T03136	5	6
T03135	6	6
T04474	3	3
T29097	4	4
Marana	5	5
432436	4	4
T03126	5	5
T28163	4	4
T03134	5	5
T28164	5	5
T04478	5	5
T28165	5	5

<sup>1</sup> Ratings: 1=excellent; 5=average; 9=very poor

<sup>2</sup> 'Santa Rita'; some winter dieback

Table 16                              Corp of Engineers Planting  
    Santa Fe, New Mexico

Species/Accession	Plant Date	Vigor	Height	Width	% Survival	Evaluation Date
ATCA-Marana	7/82	3	18	12	25	10/84
ATCA-9003553	7/82	3	18	16	60	10/84
ATFA-9005294	7/82	0	0	0	0	10/84

NOTE: Information provided by William Fuller